

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057877 A3

(51) International Patent Classification⁷: **H04N 9/78**

(21) International Application Number:
PCT/GB2003/005690

(22) International Filing Date:
22 December 2003 (22.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0229829.7 20 December 2002 (20.12.2002) GB

(71) Applicant (for all designated States except US): **SNELL & WILCOX LIMITED** [GB/GB]; 6 Old Lodge Place, St. Margaret's, Twickenham, Middlesex TW1 1RQ (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **WESTON, Martin** [GB/GB]; 7B Weston Road, Petersfield, Hampshire GU31 4JF (GB).

(74) Agents: **GARRATT, Peter, Douglas et al.**; Mathys & Squire, 100 Gray's Inn Road, London WC1X 8AL (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

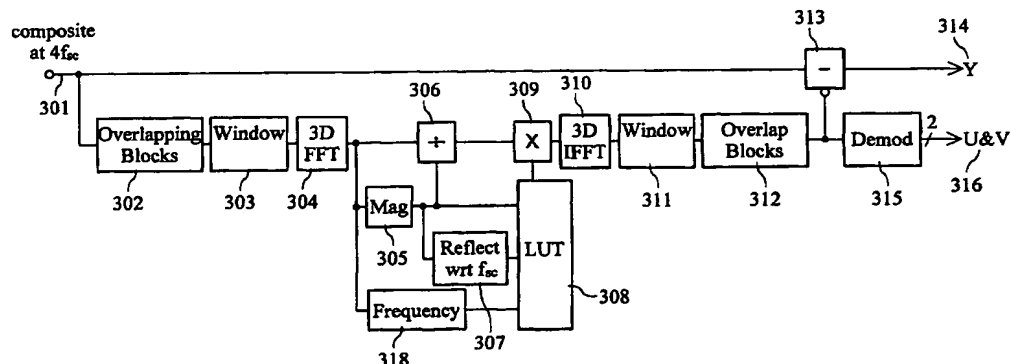
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
19 August 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **IMPROVED COMPOSITE DECODING**



(57) Abstract: A method of composite decoding in which the input signal is converted into the frequency domain, and the symmetry of frequency components with respect to the subcarrier frequency is compared. The comparison is varied in dependence upon the frequency being processed. In this way, the separation can be adapted to suit known characteristics of different portions on the input spectrum. This is particularly useful for processing NTSC signals. The allocation of a particular component to chrominance may be biased in dependence upon a measure of the luminance information of the composite signal at a corresponding spatial frequency.

WO 2004/057877 A3

INTERNATIONAL SEARCH REPORT

PCT/GB 03/05690

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N9/78

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 175 102 A (BRITISH BROADCASTING CORP) 23 January 2002 (2002-01-23) cited in the application	1-5, 24, 25
A	whole document	12, 26
A	WO 02/37420 A (CLAYTON JOHN CHRISTOPHER) 10 May 2002 (2002-05-10) page 47, line 19 - line 36 page 40, line 19 - line 26 page 11, line 16 - page 13, line 8	1, 12, 24, 26

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

2 June 2004

Date of mailing of the international search report

16/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3018

Authorized officer

Lim, J

INTERNATIONAL SEARCH REPORT

PCT/GB 03/05690

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 1175102	A	23-01-2002	EP	1175102 A2	23-01-2002
			GB	2365247 A	13-02-2002
WO 0237420	A	10-05-2002	AU	1249702 A	15-05-2002
			CA	2427631 A1	10-05-2002
			EP	1332471 A2	06-08-2003
			WO	0237420 A2	10-05-2002
			GB	2370937 A	10-07-2002
			JP	2004513546 T	30-04-2004
			US	2004017507 A1	29-01-2004